

Application Serial No. 10/754,914
Amendment dated April 10, 2006
Reply to Final Office Action of January 10, 2006

Amendments to the Claims:

1. (currently amended) A DNA transcriber for generating music, comprising:
 - a. a melodic sequence generator that is configured to receive a DNA sequence and generate a melodic sequence in response to the received DNA sequence; and
 - b. a harmonic sequence generator that is configured to receive the DNA sequence, determine an amino acid that is defined by a three-segment DNA sequence, and determine a chord in response to the defined amino acid whereby a harmonic sequence is generated in response to a succession of defined amino acids, and wherein the melodic sequence generator is further configured to receive the harmonic sequence and in response generate the melodic sequence.
2. (original) The transcriber of claim 1, further comprising a decoder that is configured to determine codons within the DNA sequence and synchronize the harmonic sequence generator in response to a determined codon.
3. (original) The transcriber of claim 1, further comprising a music signal generator that is configured to receive the melodic sequence and the harmonic sequence and generate a music signal in response to the received melodic and harmonic sequences.
4. (original) The transcriber of claim 3, wherein the music signal is an audio waveform.
5. (original) The transcriber of claim 3, wherein the music signal is a musical command sequence.
6. (original) The transcriber of claim 1, wherein the harmonic sequence generator is further configured to classify the determined amino acid according to a chemical property of the determined amino acid and to determine the chord in response to the determined amino acid chemical property.

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7. (cancelled) ~~The transcriber of claim 1, wherein the melodic sequence generator is further configured to receive the harmonic sequence and in response generate the melodic sequence.~~
8. (original) A method for musically transcribing DNA sequences, comprising:
- receiving a DNA sequence;
 - generating a melodic sequence in response to the received DNA sequence;
 - determining an amino acid that is associated with the received DNA sequence;
 - determining a chord in response to the determined amino acid; and
 - generating a melodic sequence in response to a plurality of determined chords.
9. (original) The method of claim 8, further comprising:
- determining codons within the received DNA sequence; and
 - synchronizing the harmonic generator in response to the determined codons.
10. (original) The method of claim 8, further comprising generating a music signal in response to the generated melodic and harmonic sequences.
11. (original) The method of claim 10, wherein the music signal is an audio waveform.
12. (original) The method of claim 10, wherein the music signal is a musical command sequence.
13. (original) The method of claim 8, further comprising:
- classifying the determined amino acid according to a chemical property of the determined amino acid; and
 - determining the chord in response to the classification of the amino acid.
14. (original) The method of claim 8, wherein the melodic sequence is further generated in response to the determined amino acid.

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15. (currently amended) A DNA transcriber for generating music, comprising:
- a. means for generating a melodic sequence that is configured to receive a DNA sequence and generate a melodic sequence in response to the received DNA sequence; and
 - b. means for generating a harmonic sequence ~~generator~~ that is configured to receive the DNA sequence, determine an amino acid that is defined by a three-segment DNA sequence, and determine a chord in response to the defined amino acid whereby a harmonic sequence is generated in response to a succession of defined amino acids, and wherein the means for generating a melodic sequence is further configured to receive the harmonic sequence and in response generate the melodic sequence.
16. (currently amended) A data carrier comprising
- a. software adapted to receive nucleic acid sequence data;
 - b. one or more algorithm for converting the received nucleic acid sequence into a melodic sequence in response to chords generated in response to the received nucleic acid sequence;
 - c. one or more algorithm for generating an amino acid sequence encoded by the received nucleic acid sequence; and
 - d. one or more algorithm for converting the encoded amino acid sequence into the chords used to convert the received nucleic acid sequence into the melodic sequence.
17. (previously presented) A data carrier comprising data generated by the transcriber of claim 1.
18. (previously presented) A music signal generated by the method of claim 8.
19. (original) A consumer product comprising the data carrier of claim 17.

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20. (original) The consumer product of claim 19, wherein the product is a greeting card.
21. (original) The consumer product of claim 20, wherein the greeting card is an e-card.
22. (original) A method for comparing genetic sequences comprising:
- a. generating a first and a second music sample using the method of claim 8;
 - b. comparing the first and second music samples;
 - c. generating an audible signal when the first and second music samples differ; and
 - d. correlating the audible signal with a difference in the compared genetic sequences.
23. (previously presented) A clinical analyzer for diagnostic analysis of genetic sequences comprising the DNA transcriber of claim 1.
24. (previously presented) A method for diagnosing a genetic disorder comprising:
- a. transcribing a patient's DNA sample into music according to the method of claim 8;
 - b. comparing the music generated from the patient's sample with that generated from control DNA; and
- correlating a difference in the music generated with the presence of a genetic disorder.